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IS : 8103 - 1976

Indian Standard

CODE FOR
CLEANING AND STERILIZATION OF
ARTIFICIAL INSEMINATION EQUIPMENT

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Indian Standard

CODE FOR CLEANING AND STERILIZATION OF ARTIFICIAL INSEMINATION EQUIPMENT

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AMENDMENT NO. 1 DECEMBER 2005
TO
IS 8103 : 1976 CODE FOR CLEANING AND
STERILIZATION OF ARTIFICIAL INSEMINATION
EQUIPMENT

(*Page 3, clause 2*) — Delete the clause with all sub-clauses, namely, clauses **2.1**, **2.2** and **2.3** and its entire text

(*Page 4, clause 3.2*) — Substitute the following for the existing text

‘After cleaning (*see 3.1*), the equipment should be wrapped separately in packing paper (*preferably aluminium foil*) The equipment should be sterilized by heating at 160°C in a hot-air oven for one hour or by heating at 180°C in a hot-air oven for half an hour, cooled and transferred to a dust-proof cup-board with glass shutters ’

(*Page 4, clause 4.1, line 5*) — Substitute ‘It should be sterilized by autoclaving at 5 Psi for 20 minutes’ for ‘It should be sterilized by boiling and dried properly ’

(*Page 4, clause 5*) — Substitute ‘**STERILIZATION OF JELLY**’ for ‘**STERILIZATION OF PETROLEUM JELLY**’

(*Page 4, clause 5.1*) — Substitute the following for the existing text

‘The jelly should be heated to liquefy it The liquefied jelly should be strained through cotton wool for removing the dust particles The jelly should be sterilized by autoclaving at 150°C for 30 minutes

NOTE — For hygienic reasons it is recommended that collapsible tubes for containing readily available sterilized jelly should be used Use of petroleum jelly is recommended to discontinue ’

(*Page 4, clause 6.1*) — Substitute the following for the existing text

‘The buffers for diluting semen should be sterilized by autoclaving at 5 Psi for 20 min and stored in clean and sterilized glass-stoppered bottles ’

(FAD 5)

Indian Standard

CODE FOR
CLEANING AND STERILIZATION OF
ARTIFICIAL INSEMINATION EQUIPMENT

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 30 June 1976, after the draft finalized by the Animal Housing and Equipment Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 Artificial Insemination (AI) is being increasingly used for improving genetic potentialities of the livestock in the country. This necessitates application of properly cleaned and sterilized AI equipment and material to help in controlling spread of diseases from one animal to the other. This Indian Standard has been formulated to provide guidelines on efficient cleaning and sterilization of equipment and material used in AI work.

1. SCOPE

1.1 This code provides guidelines for cleaning and sterilization of equipment and material used for processing, handling and transport of semen; and for Artificial Insemination (AI) and allied work.

2. CLEANING AND STERILIZATION OF GLASS AI PIPETTES AND RODS

2.1 Cleaning — AI pipettes and rods should be cleaned before sterilization by keeping them immersed overnight in chromic acid cleaning solution consisting of a mixture of equal parts of a saturated solution of potassium dichromate and concentrated sulphuric acid. These should then be flushed and rinsed first with ordinary tap water and subsequently with distilled water. The cleaning solution should be replaced after its colour changes from red brown to green.

2.2 Sterilization — After cleaning (*see 2.1*), the pipettes and rods should be dried and wrapped separately in packing paper. In case of pipettes, the packing paper should finish at their posterior end placed in a metal container. The metal container with pipettes and the wrapped glass rods should be sterilized by heating at 160°C in hot-air oven for one hour, cooled and transferred to a dust-proof cupboard with glass shutters.

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2.3 After use, the equipment should immediately be flushed with tap water and immersed in the cleaning solution (*see* 2.1) and cleaned and sterilized by the procedure given in 2.1 and 2.2.

3. CLEANING AND STERILIZATION OF SYRINGES, SEMEN COLLECTION AND STORAGE TUBES

3.1 Cleaning — The syringes, semen collection and storage tubes should be cleaned with tap water followed by washing with suitable detergent (neutral in reaction) by brushing inside as well as outside. These should again be washed with tap water followed by washing with distilled water and drying in a hot-air oven.

3.2 Sterilization — After cleaning (*see* 3.1), the equipment should be wrapped separately in packing paper. The equipment should be sterilized by heating at 160°C in a hot-air oven for one hour, cooled and transferred to a dust-proof cupboard with glass shutters.

3.3 After use, the equipment should be immediately flushed with tap water and cleaned and sterilized by the procedure given in 3.1 and 3.2.

4. CLEANING AND STERILIZATION OF RUBBER MATERIAL

4.1 Artificial Vagina, Liners, Cones and Adapters — The artificial vagina should be cleaned with liners on. After use, it should immediately be flushed with tap water; followed by cleaning thoroughly with soap water using a soft brush. Soap residues should be completely removed by thorough rinsing and flushing with water. It should be sterilized by boiling and dried properly. It should then be wrapped in a polyethylene sheet and kept in a dust-proof cupboard with glass shutters.

4.2 The procedure (4.1) should be followed for other rubber material such as liners, cones, and adapters. The adapters may be kept in paper boxes after drying.

5. STERILIZATION OF PETROLEUM JELLY

5.1 The white petroleum jelly should be heated to liquefy it. The liquefied jelly should be strained through cotton wool for removing and dirt particles. The petroleum jelly should be sterilized by autoclaving at 150°C for 30 minutes.

NOTE — For hygienic reasons it is recommended that collapsible tubes for containing petroleum jelly may be used.

6. STERILIZATION OF BUFFERS

6.1 The buffers for diluting semen should be sterilized by autoclaving at a pressure of 103 kPa* (1.05 kgf/cm²) for 30 minutes and stored in clean and sterilized glass-stoppered bottles.

*100 kPa = 1.0197 kgf/cm².

INDIAN STANDARDS

ON

ANIMAL HOUSING AND EQUIPMENT

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- 2732-1972 Code of practice for poultry housing (*first revision*)
 2733-1964 Code of practice for sheep and goats housing
 2734-1964 Code of practice for equine housing
 3916-1965 Code of practice for pig housing
 4466 Recommendations for farm cattle housing in plain area with medium rain fall
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